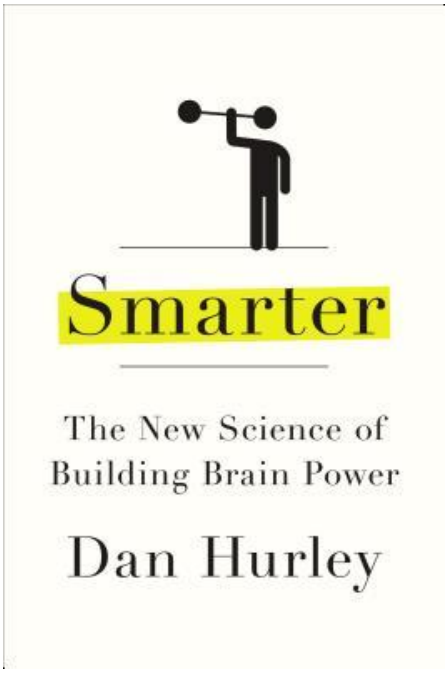

Smarter: The New Science of Building Brain Power

Dan Hurley

Smarter: The New Science of Building Brain Power

Dan Hurley

Smarter: The New Science of Building Brain Power Dan Hurley
Can you make yourself, your kids, and your parents smarter?

Expanding upon one of the most-read *New York Times Magazine* features of 2012, *Smarter* penetrates the hot new field of intelligence research to reveal what researchers call a revolution in human intellectual abilities. Shattering decades of dogma, scientists began publishing studies in 2008 showing that “fluid intelligence”—the ability to learn, solve novel problems, and get to the heart of things—can be increased through training.

But is it all just hype? With vivid stories of lives transformed, science journalist Dan Hurley delivers practical findings for people of every age and ability. Along the way, he narrates with acidtongued wit his experiences as a human guinea pig, road-testing commercial brain-training programs, learning to play the Renaissance lute, getting physically fit, even undergoing transcranial directcurrent stimulation.

Smarter speaks to the audience that made bestsellers out of *Train Your Mind, Change Your Brain* and *Moonwalking with Einstein.*

Smarter: The New Science of Building Brain Power Details

Date	:	Published December 26th 2013 by Avery (first published December 13th 2013)
ISBN	:	9781594631276
Author	:	Dan Hurley
Format	:	Hardcover 275 pages
Genre	:	Science, Nonfiction, Psychology, Self Help, Biology, Neuroscience, Audiobook

From Reader Review Smarter: The New Science of Building Brain Power for online ebook

Perry says

Bought on sale. Didn't work. May sound good, but no easy way to "build" brain "power." Not saying it won't work 4 you, but *the video shows how, not long ago, a former disciple reacted after completing suggested brain exercises.*

Adam says

A very detailed individual study into what are the current options for increasing your brain power, considering all pros and cons of every way, investigating scientific studies, both positive and negative, as well as describing Dan's own experience. The author does not draw conclusions, he gathered the data, talked to people, got first hand experience, and he lets the readers decide for themselves. Definitely recommended.

Sandra says

Definitely it was an educational and interesting read on developing fluid intelligence and working memory. There is a lot of discussion around the topic some researchers think it is not even possible, that intelligence is set by our genes and we can't do anything about it. Others believe it is somewhat possible and are searching ways to increase working memory capacity. There is increasing amount of evidence that it might be possible but effect sizes are still quite small. Bigger effects have been found for lower baseline working memory capacity witch indicates that cognitive training helps most those who need it most. But it is still young research area.

I wound that I really enjoy these journalistic type of books where the author does his/hers research, interviews relevant people and expands their understanding of a given topic. About this book I was happy to find that the discussion was really well balanced and cited. The author also conducted an experiment on himself and tried most of the scientifically proven ways of increasing the brainpower. He tried N-back task, Lumosity cognitive training program, exercising, learning to play an instrument, transcranial electrical stimulation and even nicotine patches. But his is results all together were modest. But I still think that the area might provide a new way to help people with cognitive impairment in the future.

Aaron Thibeault says

*A full executive summary of this book is available here: http://newbooksinbrief.com/2014/01/14...

The main argument: The idea that we can boost our brain power through interventions of various kinds has been around a long time. Over the years, numerous drugs, diets and other practices (including everything from physical exercise to learning a new language or musical instrument to meditation to even zapping the

brain with electrodes) have been purported to pump up our mental strength. And lately, a new practice has been added to this list: brain-training games and exercises. Indeed, in the past decade a whole new industry has emerged around brain-training programs. Built on the premise that specific types of mental activities can strengthen our cognitive skills and add to general intelligence, companies such as Lumosity and LearningRx have convinced millions of paying customers that their product will give them an edge in the brains department.

The more skeptical among us, however, may find ourselves wondering just what is the scientific basis behind all these brain games and other interventions. It was just this thought that occurred to science writer Dan Hurley; and so, following his skeptical sense, Hurley decided to investigate the matter for himself. What Hurley found was a scientific field that, though young, is bustling with activity (and controversy).

The new science of building brain power may be said to have truly kicked off in 2002. In that year, Swedish psychologist Torkel Klingberg performed a study wherein he found that subjects diagnosed with ADHD improved in both attention span and general intelligence after undergoing a brain-training program that involved working-memory exercises (it was this very study that kick-started the brain training industry).

The finding flew in the face of the long-accepted belief that intelligence simply could not be enhanced through training; and therefore, it sparked a great deal of interest in the scientific community. Eager to test the new finding, scientists from all over the world launched their own studies. While not all of the studies replicated the results that Klingberg found, many did; and enough promising results were found to draw even more interest into the field (while those who found negative results began setting up a staunch opposition to the research).

Despite the minority opposition, the long-held belief in immovable intelligence was rocked, and scientists began testing other kinds of interventions as well (including all of those mentioned above). While many of the interventions tested were found to have no effect on cognitive functioning, some did, and thus the new field gained even more momentum.

Wanting very much to get to the bottom of the matter (and the controversy) Hurley decided to check out the studies himself, and also to interview the major researchers in the field (on both sides of the debate). Based on this investigation (which is explored at length in the book), Hurley launched his own brain-training experiment–on himself. Specifically, Hurley took all of those interventions which he felt had the best evidence behind them and incorporated them into a grand brain-training program to see whether he could improve his intelligence.

The routine included the following: A boot camp program (that incorporated both aerobic exercise and resistance training); Lumosity; learning a new musical instrument (the lute); mindfulness meditation; a nicotine patch; coffee; and transcranial direct-current stimulation (tDCS). The results of the experiment? They were mixed.

Hurley's exploration of the new field of building brain power (as well as his own experiment on himself) is fascinating (and often hilarious). One of the strong points of the book is how much detail Hurley gives regarding the experiments that he investigates. However, there is one detail that Hurley often leaves out that would be nice to have: rather than specifying exactly how much a given intervention improved intelligence in terms of percentages, Hurley often confines himself to mentioning whether the improvement was statistically significant or not (which leaves us without a good indication of exactly how well a given intervention worked). Still, Hurley's book is very well researched, and both highly interesting and entertaining. A great resource for those who are interested in getting past the hype of brain boosting, and

investigating the actual science. A full executive summary of the book is available here: http://newbooksinbrief.com/2014/01/14... a podcast discussion of the book will be available soon.

Wendi Lau says

Listened to most of the book while running the Hawaii Kai Xtreme Ultra Run at 50km distance. Hurley researched different methods, techniques, substances that could make you smarter. He tried almost all of them simultaneously! Then he tested his IQ and his brain function in a MRI. The results were surprising and his conclusions were thoughtful.

Brian Clegg says

The knee-jerk reaction on seeing this book was ‘it’s going to be rubbish’, as it is widely publicised that most commercial ‘brain training’ products have no more value than any activity that keeps the mind active, from reading a book to chatting to a next-door neighbour. And while an active mind is valuable in keeping alert in old age, it gives no advantages in terms of ‘brain power’ whether you consider that as IQ or something a bit more subtle.

In fact, I needn’t have worried, because Dan Hurley is aware of this, and is approaching a very specific aspect of training, using an intense methodology, which has shown some interesting results in proper scientific testing.

Along the way, he decides to see if he can enhance his own brain, so takes a MENSA test, then engages in as many brain enhancing activities as he can before being re-tested – from physical exercise to a nicotine patch – which have been shown to have some benefit in mental acuity. Perhaps the most interesting bit of the book is where he assesses all the different possibilities, dismissing some (eating the right thing, apart from drinking coffee, for instance) and taking others on board, all based on our best current science.

Another favourite is the final section, where we see played out a significant battle between academics, some sticking to the traditional argument that all training does is train you to be better at that particular test, some open to a wide range of possibilities. It’s interesting, apart from anything else, to show just how different theories are sometimes handled in the academic community.

The only part of the book I felt didn’t quite work was a longish section on Down’s syndrome, not because it wasn’t important or interesting, but because it didn’t quite fit with everything else, centred around Hurley’s personal test, and the result was that overall the book’s structure seemed a little haphazard.

As long as you don’t object too much to the author’s slightly patronising magazine writer’s style, that makes him feel the urge to put in a number of unnecessary personal descriptions (take for instance ‘Tall, blond and good-looking: in another words, a typical Swiss’), this should prove a fascinating read on a truly interesting topic.

Ryan Hinchman says

A great review of the contradicting evidence trying to answer if brain training works. Hurley is not proposing a scientific study but submits himself to all the scientifically proven potential intelligence enhancers to see if he can boost his IQ. There are no easy answers as he interviews PHDs with contradicting points of view. I downloaded the dual n back test after reading. My favorite section was on the brain's explore or exploit functions and how memory works.

Tim says

An enjoyable read, but then I take great interest in these sorts of books. Reading through the first chapter, I thought, "wow, this is amazing! Except, I wonder what Randall Engle would say?" (I actually did ask myself that) Not to worry because Dan Hurley represents most all of the sides on the debate in this book. For reference, I knew going in that Randall Engle had tested and shown that working memory could be expanded but that fluid intelligence remained unchanged. I didn't realize that if I just turned the page to chapter two, he'd be featured prominently there and throughout as the book's antagonist.

There is one minor question, potentially an issue, that I have. In chapter four, Hurley mentions a study that found a negative correlation between prenatal fish oil supplementation and child IQ. Because this finding is so counter-intuitive, I have a lot of questions about it, such as: Was the sample size significant? Were the IQ difference significant? What factors were controlled for? etc. None of those questions were answered in the book and yet Hurley comes right out and says, "for now, at least, no solid body of scientific evidence proves that any other dietary intervention makes a difference to intellectual abilities -- other than fish oil supplementation for pregnant women, which actually looks harmful for infants' development." (p 75)

For what it's worth, I'd expect at least no significant correlation or a very minor positive one; not a negative one.

I'll have to do a little digging in the notes and will edit the review the best as I can.

Katie/Doing Dewey says

Can we make ourselves smarter? Dan Hurley tries to answer that question by first interviewing many intelligence researchers and then trying the most promising strategies himself. This involves everything from exercising to learning the renaissance lute to wearing a nicotine patch. The results include some actionable advice and lots of fun stories.

As a scientist, I think we need more people like Dan Hurley – one for every subject! The first half of this book contained the same information as a review article for the field of intelligence research. It read like a story. The research was explained clearly and simply for a general audience. Areas where scientists disagree or are uncertain were clearly distinguished from known facts. And in a brilliant move that gave this section a narrative, the research is explained as the author shares his experiences talking to researchers. Conversations, first-hand views of research labs, and witty asides keep this potentially dry section moving right along.

The second half of the book describes the author application of what he learned to his own life. This included

adding a lot of things to his daily routine, so it was both hectic and humorous. I appreciated that the author made it clear his results were unique to him. No conclusions were drawn from his sample size of one. It did, however, make for a good story. It also gave the author more room to include his experiences with different brain-training techniques. I would love to see more fields of research summarized in such an accessible way. Highly recommended for anyone who likes books with lots of fun facts, who appreciates accurate science, or who has wondered if we can learn to be smarter.

This review first published on Doing Dewey.

Deepak Rana says

Got bored. Must have a low IQ.

Katie says

It's an ok review of the topics, a quick read, but not very scientific or detailed. It's got a lot of padding about his experimentation on himself, which was basically unsuccessful. Might be worth it if you aren't already familiar with the topics (n-back, meditation, nootropics, etc) but if you are, you probably already know more than what's in this book.

Andy Gagnon says

This writing of this book bounced between glib and tedious. It drew no firm conclusions other than the obvious: exercise is good for the mind, playing a musical instrument is rewarding, brain games are mildly stimulating. The author is not a good science writer.

Jake McCrary says

Book that gives an overview of research that attempts to answer if we can train ourselves to be smarter.

Dan Hurley goes through the research and tries to identify a handful of things to try on himself to make himself smarter. The things he introduces into his life are exercise, learning a musical instrument, brain training games, nicotine, meditation, and transcranial direct-current stimulation. He ends up not sticking with meditation.

Most of the book is spent presenting the scientific debate around trying to make people smarter. Can you train yourself with a game to get smarter in general and not just better at the game? Can you improve your general working memory in a way that increases your fluid intelligence? Is fluid intelligence different from working memory?

I thought this was a pretty interesting book and would recommend it. If you want a more solid summary of the book this review contains more details.

PadresActuales.com by Jorge Castillo says

I lost my interest in reading this book when the author criticized researchers such as Dweck and Duckworth without providing supporting details and convincing arguments to his claims. Due to my lack of motivation I missed the relevance or the call-to-action in this title.

Jon says

Some scientists say brain training works, but then their studies don't support their view. Others flat n say it works in certain cases. Some say it doesn't work, but then say that it does. The author's personal anecdote provides evidence of both decline and only negligible improvement.

After 240 pages of arguing against itself, we determine that brain training doesn't work. Maybe. Probably not. Well, for some. Maybe.

The narrative is fine. It's sort of interesting, but it feels like it meanders through loosely related topics and doesn't seem to want to stand behind its own conclusion.
